

VLAN

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- Astra Linux
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 - [VLAN iproute2](#)
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- :
- Astra Linux Special Edition .10015-01 (1.7), .10015-10
 - Astra Linux Special Edition .10015-17
 - Astra Linux Special Edition .10015-37 (7.7)
 - Astra Linux Special Edition .10015-03 (7.6)
 - Astra Linux Special Edition .10152-02 (4.7)
 - Astra Linux Special Edition .10015-01 (1.6)
 - Astra Linux Special Edition .10015-16 . 1
 - Astra Linux Special Edition .10015-16 . 2
 - Astra Linux Special Edition .10265-01 (8.1)
 - Astra Linux Common Edition 2.12

VLAN

VLAN (Virtual Local Area Network) — («») , , (2 OSI) (), , , . , VLAN', , , .

, VLAN . , VLAN, . VLAN , , VLAN

VLAN — . , — 2 OSI. VLAN . VLAN . VLAN , .

VLAN, . VLAN , , VLAN 3 OSI, , , VLAN VLAN.

VLAN

, VLAN .
, , , (frame). VLAN' . IEEE 802.1Q. , VLAN'.
, VLAN access. VLAN' trunk.

VLAN :

- VLAN';
- - ;
- IP- ;
- , ;
- , () .

Astra Linux

Astra Linux VLAN networking networking NetworkManager, :

```
sudo systemctl --now mask NetworkManager
```

802.1Q Linux.

```
sudo modprobe 8021q
```

, vlan.

```
sudo apt install vlan
```

VLAN iproute2

iproute , VLAN-.

VLAN-:

```
sudo ip link add link DEVNAME name VLANNNAME type vlan id VLAN-ID
reorder_hdr on|off loose_binding on|off gvrp on|off ingress-qos-map FROM:TO
egress-qos-map FROM:TO
```

```
reorder-header( ), VLAN, ., ., , tc (traffic control) u32 .
```

```
loose-binding VLAN- .-, down VLAN- down. , VLAN- .
```

```
gvrp , VLAN gvrp .
```

```
ingress-qos-map egress-qos-map 802.1q skb( ). , VLAN- 3 0 7. skb 32 .
```

```
VLAN- ip link show -d[details].
```

```
$ip -details link show dev VLANNNAME
19: VLANNNAME@eth0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP
    link/ether 00:aa:92:08:18:a6 brd ff:ff:ff:ff:ff:ff
    vlan id 1 <REORDER_HDR>
        egress-qos-map { 0:7 1:7 2:7 3:7 4:7 5:7 6:7 7:7 }
```

VLAN- ip link set, type vlan.

```
sudo ip link set dev VLANNNAME type vlan OPTION VALUE
```

VLAN-

```
sudo ip link del VLANNNAME
```

man ip link.

networking

```
auto <InterfaceName>                                #
iface <InterfaceName> inet manual                  #

auto <InterfaceName>.<VLAN ID>
iface <InterfaceName>.<VLAN ID> inet static
    vlan-raw-device <InterfaceName>                # vlan_raw_device
    address ...
    netmask ...
```

VLAN' Astra Linux , , /etc/network/interfaces.

, VLAN' , /etc/network/interfaces.

:

```
auto vlan1400
iface vlan1400 inet static
    address 192.168.1.1
    netmask 255.255.255.0
    vlan_raw_device eth0
```

, eth0.1400, vlan1400:

```
auto eth0.1400
iface eth0.1400 inet static
    address 192.168.1.1
    netmask 255.255.255.0
    vlan_raw_device eth0
```

, — vlan_raw_device. , vlan1400.

1400 , VLAN ID .